

## REMARKS

This is a full and timely response to the non-final Office Action mailed May 15, 2007. Reconsideration and allowance of the application and presently pending claims are respectfully requested.

### **Present Status of Patent Application**

Original claims 1-46 are currently pending. No claims are amended. The rejection of claims 1-46 is respectfully traversed. Reconsideration and allowance of the application and presently pending claims are respectfully requested.

### **Claim Rejections under 35 U.S.C. §102**

#### **Statement of the Rejection**

*Claims 1-46 are rejected under 35 U.S.C. 102(e) as being anticipated by Draper et al. (Hereinafter "Draper") US Patent No. 5,924,096.*

#### **Response to the Rejection**

##### **Claim 1**

A proper rejection under 35 U.S.C. §102(e) requires that a single prior art reference disclose each element of the claim. Furthermore, anticipation requires that each and every element of the claimed invention be disclosed in a single prior art reference. Applicants respectfully submit that the current rejection of claim 1 fails to satisfy these requirements due to at least the reasons outlined below.

a) The Office action alleges that "*Draper teaches a method for resynchronizing multiple copies of a database after a divergence in transaction history, the database, D1, and its copies D1', having database pages, logs, and log records [synchronize the local copies. The tag index may also be used to create a virtual update log, see ab]...*" (Emphasis added).

However, such an allegation is not supported by Draper, in light of the following:

- i) Applicants have described the term "a divergence in transaction history" in paragraph [0011] of their specification as follows: "*a divergence in transaction history is a condition in which D1 fails for a period of time during which D' remains operational, and wherein D1 is brought back online.*" This aspect is unambiguously illustrated in

Applicants' Figure 3. The Office action fails to disclose where in Draper can be found a teaching related to divergence.

- ii) Claim 1 incorporates two physical logs "database and database copy logs" - one associated with D1, and a copy that is associated with D1'. Contrary to the Office action assertion, Draper does not disclose the presence of two such logs, though he does indeed disclose a virtual log (which does not anticipate Applicants' two separate logs). In fact, Draper teaches away from the use of two separate logs. Specifically, Draper's Abstract states: "*The tag index may also be used to create a virtual update log, thereby removing the need to maintain one or more physical logs recording the history of the copies*" (Emphasis added).

This is re-iterated in Draper's col. 10, lines 42-44, which states: "*The present invention differs from implementations which use physical update logs by not requiring that a physical list of update events be maintained.*"

- b) The Office action further alleges that Draper discloses a fail over log sequence number (FOLSN). Allegedly, the FOLSN is anticipated by Draper's "[514-518 of fig. 5; a list of recent events constrained, col. 7, lines 33-52]" Applicants respectfully submit that Draper's 514-518 are part of an event creation list for updating a cache (Draper FIG. 5) rather than for synchronizing (which is carried out in his block 528). The term FOLSN has been specifically described by Applicants, in paragraph [0015] as being a part of "log shipping" between two servers, and defined as: "*the location of the divergence is determined, called the failover log sequence number (FOLSN)...*" Draper does not incorporate Applicants' FOLSN because Draper does not carry out log shipping (two separate data logs are not utilized) nor does Draper disclose "divergence" which is a condition associated with log shipping.

Consequently, Draper fails to anticipate that part of claim 1, which cites: "*identifying the point when the divergence in transaction history occurred using the database and database copy logs, the point represented by a fail over log sequence number (FOLSN).*"

- c) The Office action then alleges that Applicants' "processing the database log records created after the divergence..." is disclosed in Draper because "*the step 516 may ensure that only events which modify data item 202 contents are placed in the event list, col. 7' lines 45-*

50” Applicants claim 1 pertains to a divergence in transaction history. As asserted above, Draper does not disclose an event pertaining to a divergence condition arising from the use of two log records. Consequently, Applicants respectfully submit that the Office action allegation is speculative in nature by providing a meaning to Draper’s “event” beyond what is reasonably disclosed in Draper.

Draper consequently fails to anticipate that part of claim 1, which cites: “*processing the database log records created after the divergence in transaction history to populate from D1 to D1’ or from D1’ to D changes and identified content, the log records having log sequence numbers for use in processing.*”

For at least the reasons outlined above, Applicants respectfully submit that the current rejection fails to meet the requirements under 35 U.S.C. §102(e), which requires the single prior art reference of Draper to disclose each and every element of the claim. Consequently, Applicants respectfully request withdrawal of the rejection followed by allowance of claim 1.

#### **Claims 2-21**

Applicants respectfully submit that the Office action rejection of Applicants’ claims 2-21 is improper. For example, the Office action rejects claim 2 by asserting that Draper discloses in col. 7, lines 53-58 and claim 9, the MPLSN of Applicants’ claim 2. To the contrary, the referred text of Draper pertains to an events list and does not disclose a maximum page log sequence number (MPLSN). Therefore, Applicants respectfully assert that the Office action allegation is speculative in nature and is interpreting Draper in a manner that extends beyond what is reasonably disclosed in Draper.

This and other such assertions in the Office action lead Applicants to believe that the rejection of claims 2-20 is improper. However, in the interests of brevity Applicants chose to refrain from getting into a detailed explanation at this stage, for at least the reason that these claims are dependent claims that are directly or indirectly dependent on allowable claim 1. As a result of this dependency, claims 2-21 are also allowable as a matter of law. *In re Fine*, 837 F.2d 1071 (Fed. Cir. 1988).

Consequently, Applicants respectfully request withdrawal of the rejection under 35 U.S.C. § 102(e), followed by allowance of claims 2-21.

#### **Claim 22**

In rejecting Applicants’ claim 22, the Office action states: “*Referring to claim 22, it is*

*an apparatus claim of claim 1, therefore, it is rejected under the same rationale.”* Applicants respectfully traverse the Office action assertion whereby claims 22 and 1 are alleged to be equivalent to one another. The claim language of claim 22 does not directly replicate that of claim 1 and Applicants respectfully assert that the extent of claim coverage provided between the two claims is different. The Office action fails to clearly disclose anticipatory elements in Draper as required under 35 U.S.C. §102(e).

Nonetheless, Applicants draw attention to at least that portion of claim 22 that incorporates “point of divergence in transaction history.” As explained above, Draper does not disclose a divergence. For at least this reason, Applicants respectfully assert that the rejection is improper, and hereby request withdrawal of the rejection followed by allowance of claim 22.

#### **Claims 23-24**

Applicants respectfully submit that independent claim 22 is allowable for reasons described above. Consequently, claims 23-24 that are each dependent directly on claim 22 are also allowable as a matter of law. *In re Fine*, 837 F.2d 1071 (Fed. Cir. 1988).

For at least this reason, Applicants respectfully request withdrawal of the rejection under 35 U.S.C. § 102(e), followed by allowance of claims 23-24.

#### **Claim 25**

In rejecting Applicants’ claim 25, the Office action states: “*Referring to claims 25-46, all limitations of these claims have been addressed in the analysis of claims 1-24 above, and these claims are rejected on that basis.*” Applicants respectfully traverse the Office action assertion whereby claim 25 is alleged to be equivalent to one or more claims among claims 25-46. To the contrary, Applicants have provided in claim 25, various claim elements that are patentably different from claim elements in other claims.

For example, claim 25 includes: “*replacing those pages on the server computer being recovered with their images from the non-recovering server computer.*” This aspect is not included in any of claims 1-24. Consequently, Applicants respectfully submit that it is improper on the part of the Office action to reject claim 25 out of hand using innuendo, without clearly showing how the cited prior art of Draper anticipates each of the method steps of claim 25.

In summary, Applicants respectfully assert that claim 25 is allowable over the cited

prior art and hereby request withdrawal of the rejection followed by allowance of claim 25.

**Claim 26**

Here again, in rejecting Applicants' claim 26, the Office action states: "*Referring to claims 25-46, all limitations of these claims have been addressed in the analysis of claims 1-24 above, and these claims are rejected on that basis.*" Applicants respectfully traverse the Office action assertion whereby claim 26 is alleged to be equivalent to one or more claims among claims 25-46. To the contrary, Applicants have provided in claim 26, various claim elements that are patentably different from claim elements in other claims.

For example, claim 26 includes: "*creating a list of pages having been changed.*" This aspect is not included in any of claims 1-24. Consequently, Applicants respectfully submit that it is improper on the part of the Office action to reject claim 26 out of hand using innuendo, without clearly showing how the cited prior art of Draper anticipates each of the method steps of claim 26.

Applicants respectfully assert that claim 26 is allowable over the cited prior art and hereby request withdrawal of the rejection followed by allowance of claim 26.

**Claims 27-46**

Applicants respectfully submit that the Office action rejection of Applicants' dependent claims 27-46 is improper. Specifically, the Office action fails to disclose in sufficient and appropriate detail, how the cited prior art of Draper anticipates each of claims 27-46, several of which are structured to have a long chain of indirect claim dependency. For example, claim 41 has a dependency chain extending back to claim 26 via claims 27-39. A proper rejection requires that each of the elements defined by claim 41 as well as elements of independent claim 26 and intervening dependent claims should be unambiguously shown as being anticipated by Draper. The Office action fails to do so. For example, the Office action fails to disclose where in Draper can be found the "log shipping" element of Applicants' claim 41. As pointed out above (in response to rejection of claim 1), Draper teaches away from using two logs and as a result does not disclose log shipping.

Furthermore, Applicants respectfully assert that claims 27-46 are allowable for at least the reason that these claims are directly or indirectly dependent on allowable claim 26 and are consequently allowable as a matter of law. *In re Fine*, 837 F.2d 1071 (Fed. Cir. 1988).

Applicants respectfully request withdrawal of the rejection under 35 U.S.C. § 102(e),

**DOCKET NO.:** MSFT-1742/301617.1  
**Application No.:** 10/602,283  
**Office Action Dated:** May 15, 2007

**PATENT**

followed by allowance of claims 27-46.

**Prior Art Made of Record**

The prior art made of record has been considered, but is not believed to affect the patentability of the presently pending claims.

**DOCKET NO.:** MSFT-1742/301617.1  
**Application No.:** 10/602,283  
**Office Action Dated:** May 15, 2007

**PATENT**

### **CONCLUSION**

Applicants respectfully submit that pending claims 1-46 are allowable. Favorable reconsideration and allowance of the present application and all pending claims are hereby courteously requested. If, in the opinion of the Examiner, a telephonic conference would expedite the examination of this matter, the Examiner is invited to call the undersigned representative.

Date: August 8, 2007

**/Joseph F. Oriti/**  
Joseph F. Oriti  
Registration No. 47,835

Woodcock Washburn LLP  
Cira Centre  
2929 Arch Street, 12th Floor  
Philadelphia, PA 19104-2891  
Telephone: (215) 568-3100  
Facsimile: (215) 568-3439